DEPARTMENT OF TRANSPORTATION FEDERAL AVIATION ADMINISTRATION

A9SW Revision 11 AIR TRACTOR AT-250 AT-300 AT-301 AT-302 AT-400 AT-400A

February 20, 1998

TYPE CERTIFICATE DATA SHEET NO. A9SW

This data sheet which is part of Type Certificate No. A9SW prescribes conditions and limitations under which the production for which the type certificate was issued meets the airworthiness requirements of the Federal Aviation Regulations.

Type Certificate Holder: Air Tractor, Inc.

Olney, Texas 76374

I - Model AT-300 1 PCLM (Restricted Category) Approved November 30, 1973

Engine Pratt & Whitney R985-AN1, or -AN3, with carburetor parts list setting A30258-2.

Fuel 80/87 minimum grade aviation gasoline

Engine limits <u>HP RPM M.P. ALT.</u>

 Takeoff (5 minutes)
 450
 2300
 37.5
 S.L.

 Max. Continuous
 450
 2300
 37.5
 S.L.

 Max. Continuous
 450
 2300
 37.0
 1,500

Propeller and Hamilton Standard, constant speed, 2D30 hub, 6101A-12 blades.

propeller limits Diameter 109 in. max., 107 in. min. Pitch settings 10.5° low and

26° high at 42" sta.

Airspeed limits Vne (Never exceed)176 m.p.h. (153 knots)

(CAS) Va (Maneuvering)140 m.p.h. (121 knots)

Vno (Max. structural cruising)140 m.p.h. (121 knots)

Vfe (Flap extended)115 m.p.h. (100 knots)

C.G. range (+14.0) to (+18.0) at 5,000 lbs.

(+14.0) to (+23.0) at 4,300 lbs. and below. Straight line variation between points.

NOTE 13

Maximum weight 5,000 lbs.

No. of seats 1 (+74.0)

Maximum hopper load See weight and balance data.

Fuel capacity 76 gal. (+33.0)

(70 gal. usable capacity, one 38.0 gal. tank in each wing.)

Oil capacity 9.5 gal. total 71 lb. at (-23.0) (8 gal. usable) See Note 8.

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Control surface movements Up 30° 18° Elevator Down Elevator tab Up 21° Down 21° (S/N -0001 through -0003) 11° Down 10° (S/N -0004 and up) Up Rudder Left 21°±1° Right 21°±1° Aileron 23° Down 15° Up Down 29° Flaps 10° Aileron droop with full flap 300-0001 and subsequent Serial Nos. eligible

II - Model AT-301 1 PCLM (Restricted Category) Approved December 19, 1974

Engine Pratt & Whitney WASP R1340 ANI (S3H1 Commercial designation) with carburetor parts

list setting 395118-3 or A-18639-7 or A-18639-8

Fuel 80/87 minimum grade aviation gasoline

Engine limits ΗP S.L. Takeoff (5 minutes) 600 2250 36.0 Max. Continuous 550 2200 34.0 S.L. Max. Continuous 550 2200 32.5 5,000

Propeller and Hamilton Standard, 22D40 hub, 6533A-12 blades,

propeller limits constant speed hydromatic.

Diameter 109 inch maximum 107 inch minimum. Pitch settings 12° low and 35° high at 42 inch station.

OR Hamilton Standard 22D40 hub, EAC AG200-2 blades,

constant speed, hydromatic.

Diameter 106 inch maximum 104 inch minimum Pitch settings 12° low and 35° high at 42 inch station. Hamilton Standard 12D40 hub, 6101A-12 blades,

constant speed.

Diamter 109 inch maximum 107 inch minimum Pitch settings 12° low and 26° high at 42 inch station. Hamilton Standard 23D40 hub, 6533A-18 blades,

constant speed, hydromatic, 3-blade.

Diameter 103 inch maximum 101 inch minimum Pitch settings 10° low and 35° high at 42° inch station.

OR Hamilton Standard 12D40 hub, EAC AG100-2 blades,

constant speed.

Diameter 106 inch maximum 104 inch minimum Pitch settings 11° low and 26° high at 42° inch station.

 Airspeed limits
 Vne
 (Never exceed)
 176 m.p.h. (153 knots)

 (CAS)
 Va
 (Maneuvering)
 140 m.p.h. (121 knots)

 Vno
 (Max. structural cruising)
 140 m.p.h. (121 knots)

 Vfe
 (Flap extended)
 115 m.p.h. (100 knots)

C.G. range (+14.0) to (+18.0) at 5,000 lbs.

(+14.0) to (+23.0) at 4,300 lbs. and below. Straight line variation between points.

NOTE 13

Maximum weight 5,000 lbs.

OR

OR

No. of seats 1 (+74.0)

Maximum hopper load See weight and balance data.

Fuel capacity 76 gal. (+33.0)

(70 gal. usable capacity, one 38.0 gal. tank in each wing.)

126 gallons optional, (120 gallons usable)

Oil capacity 9.5 gal. total 71 lb. at (-23.0) (8 gal. usable) See Note 8.

Control surface movements Elevator Up 30° Down 18°

Elevator tab Up 21° Down 21° (S/N -0001 through -0003)

Up 11° Down 10° (S/N -0004 and up)

RudderLeft $21^{\circ}\pm1^{\circ}$ Right $21^{\circ}\pm1^{\circ}$ AileronUp 23° Down 15° Flaps---Down 29° Aileron droop with full flap 10°

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Serial Nos. eligible 301-0001 and subsequent

III - Model AT-302 1 PCLM (Restricted Category) Approved December 2, 1977

Engine AVCO Lycoming LTP 101-600A-1A

Fuel ASTM D 1655-70 Jet A,

Jet A1 & Jet B

Mil - T - 5624 Grades JP-4 and JP-5 or equivalent

Hnama	limite
Engine	HIHILIS

Liig	Power	Torque	Gas	Prop	Gas Gen RPM	Oil Pres	Oil Temp
	Setting	Ft# (PSI)	Temp°F.	RPM	100% = 47,870	P.S.I.	°F.
	Takeoff	1634	1405	1050	40.020	20.105	20.215
	599 SHP	(64.7)	1405	1950	49,020	20-105	20-215
	Max.						
	Cont.	1542					
	565 SHP	(61.0)	1365	1950	48,346	20-105	20-215
	Trans-	1687	1550				
	sient	(66.8)		2112	49,545		
	Starting		1650			200	
	J						-20

Minimum airplane operating temperature +10°F.

Propeller and Hartzell HC - B 3TN - 3 G/T 10282 + 6

propeller limits Diameter 106.5 in. to 108.5 in. Pitch settings 18° low and

87.6° feather at 30" sta., reverse -7.8°.

Airspeed limits Vne (Never exceed) 140 m.p.h. (121 knots)
(CAS) Va (Maneuvering) 140 m.p.h. (121 knots)
Vno (Max. structural cruising) 140 m.p.h. (121 knots)
Vfe (Flap extended) 115 m.p.h. (100 knots)

C.G. range (+15.0) to (+18.0) at 5,000 lbs.

(+15.0) to (+24.0) at 4,300 lbs. and below. Straight line variation between points.

NOTE 14

Maximum weight 5,000 lbs.
Baggage Compartment 60 lbs. (+94 in.)

Maximum Operating Altitude 8,000' MSL

No. of seats 1 (+74.0)

Maximum hopper load See weight and balance data.

Fuel capacity 76 gal. (+33.0)

(70 gal. usable capacity, one 38.0 gal. tank in each wing.)

126 gal. (+33.0) (optional), 120 gallons usable

Oil capacity 9.5 qts. total 17.3 lb. at (-36) (8 qt. usable)

Control surface movements Up 30° 18° Elevator Down Elevator tab Up 14° Down 7°

21° ±1° Rudder Left 21°±1° Right Aileron Up 23° Down 15° Flaps Down 29° Aileron droop with full flap 10°

Serial Nos. eligible 302-0001 and subsequent

IV - Model AT-400 1 PCLM (Restricted Category) Approved April 11, 1980

Pratt & Whitney PT 6A-15AG, PT6A-34, PT6A-34AG or PT6A-27 Engine

Fuel Per Specifications CPW 46, PWA 522, or diesel fuels.

Oil Per Specifications CPW 202 or PWA 521.

Engine limits PT6A-15AG or PT6A-27

Liighte mints i	1 1011 15110	011101121		Maximum			Oil	Oil
Power		Torque		Observed	Ng	Np	Pressure	Temperature
Setting	SHP	LB-FT	PSIG	ITT °C	RPM %	RPM %	PSIG	°C
	680							
All	ISA	1628	53.3	725	38100-	2200-		
Operations	+6.7°C				101.5	100	80 to 100	10 to 99
Lo Idle				660			40 (MIN)	-40 to 99
Starting				1090				-40 (MIN)
				2 Seconds				
Acceleration		2100	68.8	825	38500-	2420		
				2 Seconds	102.6	110		0 to 99
Max Reverse	620	1554	53.3	725	35812	2100-95.5	80 to 100	0 to 99
					95.5			
Engine Limits	PT6A-34, -	34AG						
				Maximum			Oil	Oil
Power		Torque		Observed	Ng	Np	Pressure	Temperature
Setting	SHP	LB-FT	PSIG	ITT °C	RPM %	RPM %	PSIG	°C
	680							
All	ISA	1628	53.3	750	38100-	2200-		
Operations	+6.7°C				101.5	100	85 to 105	10 to 99
Lo Idle				685			40 (MIN)	-40 to 99
Starting				1090				-40 (MIN)
-				2 Seconds				
Acceleration		2100	68.8	850	38500-	2420-		
				2 Seconds	102.6	110		0 to 99
		1554	F2 2	750	25 012	2100 05 5	85 to 105	0 to 99
Max Reverse	620	1554	53.3	750	35,812	2100-95.5	85 10 105	0 10 99

Hartzell HC-B3TN-3D/T 10282 + 4, HC-B3TN/T10282N + 4, or HC-B3TN-3D/T10282NS Propeller and

+4

Max. dia. 106", Min. dia. 102" propeller limits

Pitch settings, high 86-88°, low 18°, reverse -7.8° at 30" sta.

Airspeed limits Vne (Never exceed) 140 m.p.h. (121 knots) Va (Maneuvering) 140 m.p.h. (121 knots)

NOTE 15

Vno (Max. structural cruising) 140 m.p.h. (121 knots) Vfe (Flap extended) 115 m.p.h. (100 knots)

C.G. range (+16.0) to (+24.0) at 6,000 lbs.

(+16.0) to (+25.0) at 5,000 lbs. and below. Straight line variation between points.

NOTE 14

 $\begin{array}{ll} \text{Maximum weight} & 6,000 \text{ lbs.} \\ \text{No. of seats} & 1 \ (+74.0) \end{array}$

Maximum hopper load See weight and balance data.

Baggage Compartment 60 lbs. (+94 in.) Fuel capacity 126 gal. (+33.0)

(120 gal. usable capacity, one 63-gal. tank in each wing.)

Oil capacity 2.3 gals. (1.5 gals. usable)

Control surface movements Elevator 30° 18° Up Down Elevator tab Up 9° ± 1.5° Down 5° ± 1.5° Rudder Left $21^{\circ}\pm1^{\circ}$ Right 21°±1° Aileron Up 23° 15° Down Flaps 26° Down

Aileron droop with full flap 10°

Serial Nos. eligible 400-0244 and subsequent

V - Model AT-400A 1 PCLM (Restricted Category) Approved November 20, 1981

Engine Pratt & Whitney PT 6A-20A, -20B, PT6A-20, PT6A-34 OR PT6A-34AG,

PT6A-15AG, PT6A-27, PT6A-21 Per Specifications CPW 46, PWA 522. Per Specifications CPW 202 or PWA 521.

Engine limits PT6A-20, -20A, -20B

Fuel

Oil

Engine mines	1 1011 20,	2011, 202						
				Maximum			Oil	Oil
Power		Torque		Observed	Ng	Np	Pressure	Temperature
Setting	SHP	LB-FT	PSIG	ITT °C	RPM %	RPM %	PSIG	°C
	550							
All	ISA	1315	42.5	750	38100-	2200-		
Operations	+6.7°C				101.5	100	65 to 85	10 to 99
Lo Idle				685			40(MIN)	-40 to 99
Starting				1090				-40 (MIN)
				2 Seconds				
Acceleration		1500	48.5	850	38500-	2420-		
				2 Seconds	102.6	110		0 to 99
Max Reverse	500	1315	42.5	750	38100-	2090-95	65 to 85	0 to 99
					101.5	1960-89		

Engine Limits	PT6A-21							
D		m.		Maximum	N	N.T.	Oil	Oil
Power	CIID	Torque	DCIC	Observed ITT °C	Ng	Np	Pressure	Temperature °C
Setting	SHP 550	LB-FT	PSIG	111	% RPM	% RPM	PSIG	• C
All	ISA	1315	42.5	695	38100-	2200-	80 to 100	10 to 99
Operations	+6.7°C				101.5			
Lo Idle				660	19500		40 (MIN)	-40 to 99
				1000	51-53			10.3.577
Starting				1090				-40 MIN
Acceleration		1500	48.5	825	38500	2420		0-99
receieration		1300	40.5	023	102.6	2420		0))
Max Reverse	550	1315	42.5	695	38100	2112	80 - 100	0 - 99
					101.5			
	DEC 1 07	1516						
Engine Limits	PT6A-27,	-15AG		Maximum			Oil	Oil
Power		Torque		Observed	Ng	Np	Pressure	Temperature
Setting	SHP	LB-FT	PSIG	ITT °C	RPM %	RPM %	PSIG	°C
Betting	550	LDII	1510	111 C	1CI 1VI 70	101 101 70	1510	C
All	ISA	1315	42.5	725	38100-	2200-	80 to 100	10 to 99
Operations	+6.7°C			,	101.5	100		
Lo Idle				660			40 (MIN)	-40 to 99
Starting				1090			, ,	-40 (MIN)
				2 Seconds				
Acceleration		1500	48.5	825	38500-	2420-		
				2 Seconds	102.6	110		0 to 99
Max Reverse	550	1315	42.5	725	35812	2100-95	80 to 100	0 to 99
					95.5			
Engine Limits	PT6A-34	-34AG						
Eligine Elinits	1 10/1-54,	34/10		Maximum			Oil	Oil
Power		Torque		Observed	Ng	Np	Pressure	Temperature
Setting	SHP	LB-FT	PSIG	ITT °C	RPM %	RPM %	PSIG	°C
J	550							
All	ISA	1315	42.5	750	38100-	2200-	85 to 105	10 to 99
Operations	+6.7°C				101.5	100		
Lo Idle				685			40 (MIN)	-40 to 99
Starting				1090			-40 (MIN)	
		4.500	40.5	2 Seconds	20700	2.420		0 00
Acceleration		1500	48.5	850	38500-	2420		0 to 99
Mass Dassassas	550	1215	40.5	2 Seconds	102.6 35812	110	85 to 105	0 to 99
Max Reverse	550	1315	42.5	750	33012	2100-95	83 10 103	0 10 99
					95.5			
					95.5			
Propeller a	and		Hartzell HC-l	33TN-3D/T 1028		-B3TN-3D/7	Γ10282N + 4,	, or
Propeller a			HC-B3TN-3E	D/T10282NS + 4	82 +4, or HC	-B3TN-3D/T	Γ10282N + 4,	, or
			HC-B3TN-3I Max. dia. 106	D/T10282NS + 4 5 to 102	82 +4, or HC			or
			HC-B3TN-3I Max. dia. 106	D/T10282NS + 4	82 +4, or HC			or
propeller	limits		HC-B3TN-3E Max. dia. 100 Pitch settings	D/T10282NS + 4 5 to 102 , high 86-88°, lo	82 +4, or HC	se -7.8° at 30)" sta.	
propeller Airspeed l	limits		HC-B3TN-3I Max. dia. 106 Pitch settings Vne (Nev	0/T10282NS + 4 5 to 102 , high 86-88°, lo er exceed)	82 +4, or HC	se -7.8° at 30)" sta.) m.p.h. (121	knots)
propeller	limits		HC-B3TN-3I Max. dia. 106 Pitch settings Vne (Nev Va (Mar	0/T10282NS + 4 5 to 102 , high 86-88°, lo er exceed) neuvering)	82 +4, or HC w 18°, revers	se -7.8° at 30 140 140)" sta.) m.p.h. (121) m.p.h. (121	knots) knots)
propeller Airspeed l	limits		HC-B3TN-3I Max. dia. 100 Pitch settings Vne (Nev Va (Mar Vno (Max	D/T10282NS + 4 to 102 , high 86-88°, lo er exceed) neuvering) c. structural cruis	82 +4, or HC w 18°, revers	se -7.8° at 30 140 140 140)" sta.) m.p.h. (121) m.p.h. (121) m.p.h. (121	knots) knots) knots)
propeller Airspeed l	limits		HC-B3TN-3I Max. dia. 100 Pitch settings Vne (Nev Va (Mar Vno (Max	0/T10282NS + 4 5 to 102 , high 86-88°, lo er exceed) neuvering)	82 +4, or HC w 18°, revers	se -7.8° at 30 140 140 140)" sta.) m.p.h. (121) m.p.h. (121	knots) knots) knots)
propeller Airspeed l	limits		HC-B3TN-3I Max. dia. 100 Pitch settings Vne (Nev Va (Mar Vno (May Vfe (Flap	D/T10282NS + 4 to 102 , high 86-88°, lo er exceed) neuvering) c. structural cruis	82 +4, or HC w 18°, revers	se -7.8° at 30 140 140 140)" sta.) m.p.h. (121) m.p.h. (121) m.p.h. (121	knots) knots) knots)
propeller Airspeed 1 (CAS)	limits		HC-B3TN-3I Max. dia. 100 Pitch settings Vne (Nev Va (Mar Vno (Max Vfe (Flap (+16.0) to (+2	D/T10282NS + 4 to 102 , high 86-88°, lo er exceed) neuvering) to extended)	82 +4, or HC w 18°, revers sing)	se -7.8° at 30 140 140 140)" sta.) m.p.h. (121) m.p.h. (121) m.p.h. (121	knots) knots) knots)
propeller Airspeed 1 (CAS)	limits		HC-B3TN-3I Max. dia. 100 Pitch settings Vne (Nev Va (Mar Vno (Max Vfe (Flap (+16.0) to (+2	D/T10282NS + 4 to 102 high 86-88°, lo er exceed) neuvering) s. structural cruis extended)	82 +4, or HC w 18°, revers sing)	se -7.8° at 30 140 140 140)" sta.) m.p.h. (121) m.p.h. (121) m.p.h. (121	knots) knots) knots)
Airspeed I (CAS) C.G. range	imits		HC-B3TN-3I Max. dia. 100 Pitch settings Vne (Nev Va (Max Vno (Max Vfe (Flap (+16.0) to (+2 Straight line) NOTE 14	D/T10282NS + 4 to 102 high 86-88°, lo er exceed) neuvering) s. structural cruis extended)	82 +4, or HC w 18°, revers sing)	se -7.8° at 30 140 140 140)" sta.) m.p.h. (121) m.p.h. (121) m.p.h. (121	knots) knots) knots)
propeller Airspeed l (CAS)	imits		HC-B3TN-3I Max. dia. 100 Pitch settings Vne (Nev Va (Mar Vno (Max Vfe (Flap (+16.0) to (+2 Straight line)	D/T10282NS + 4 to 102 high 86-88°, lo er exceed) neuvering) s. structural cruis extended)	82 +4, or HC w 18°, revers sing)	se -7.8° at 30 140 140 140)" sta.) m.p.h. (121) m.p.h. (121) m.p.h. (121	knots) knots) knots)

No. of seats 1 (+74.0)

Maximum hopper load See weight and balance data.

Baggage Compartment 60 lbs. (+94 in.)

Fuel capacity 126 gal. (+33.0)

(120 gal. usable capacity, one 63-gal. tank in each wing.)

Oil capacity 2.3 gals. (1.5 gals. usable)

Control surface movements Elevator Up 30° Down 18°

Elevator tab Up $9^{\circ} + 1.5^{\circ}$ Down $5^{\circ} \pm 1.5^{\circ}$ Rudder Left $21^{\circ} \pm 1^{\circ}$ Right $21^{\circ} \pm 1^{\circ}$ Aileron Up 23° Down 15° Flaps --- Down 26° Aileron droop with full flap 10°

Serial Nos. eligible 400A-0397 and subsequent

VI - Model AT-250 1 PCLM (Restricted Category) Approved March 29, 1991

Engine Pratt & Whitney R985-AN14B with carburetor parts list setting A17809-5 or -6

Fuel 80/87 minimum grade aviation gasoline.

ALT **Engine Limits** HP **RPM** MP Takeoff (5 minutes) 450 2300 36.5 SL Maximum Continuous 450 2300 36.5 SL Maximum Continuous 450 2300 36.0 3500

Propeller & Hamilton Standard, constant speed, EAC22D30-407 hub,

Propeller 6533A-12 blades, hydromatic

Limits Diameter 109 inch maximum, 107 inch min.

Pitch settings 10.0° low and 35.0 high at 42 inch station

Airspeed VNE (Never Exceed) 176 miles per hour (153 knots)
Limits VA (Maneuvering) 140 miles per hour (121 knots)
CAS VNO (Maximum Cruise) 140 miles per hour (121 knots)

CG Range (+16.0) to (+22.0) at 4500 pounds.

(+16.0) to (+23.0 at 4300 pounds and below. (Straight line variation between points.

Weight 4500 pounds.

Seats 1 (+74.0)

Hopper Load See weight and balance data.

Fuel Capacity 76 gallon (+33.0) (70 gallon usable capacity, one 38 gallon tank in each wing.)

Oil Capacity 9.5 gallon total 71 pounds at (-23.0)

(8 gallon usable)

Control Elevator 28° 18° Up Down Surface 14° 14° Elevator Tab Up Down Movements Rudder Left 21° Right 21° Aileron Up 23° Down 15°

Serial Nos. 250-0491

Data Pertinent to All Models:

Equipment The basic required equipment as prescribed in the applicable airworthiness

regulations must be installed in the aircraft for certification. In addition, the

following equipment is required.

a. Operative pre-stall warning system (dwg. 50130)

b. 24 volt electrical system

c. Slip indicator

Agricultural

The following agricultural dispersal equipment may be installed:

dispersal equipment None, or any of the following:

a. Dust spreader (dwg. 80020)

b. Standard Spray system (dwg. 80038)

c. Micronair spray system (dwg. 80039)

Certification FAR 21.25(a)(1). Aircraft met structural requirements of FAR 23. Basis February 1,

1965, through Amendment 23-9. Flight criteria and propulsion and system and equipment items met the requirements of Appendix B, CAM 8, November 15, 1951, as

amended through January 10, 1956.

Datum Wing leading edge.

Leveling means Top of L/H landing gear leg at intersection with fuselage side skin.

Baggage One baggage compartment at (+94). Max capacity 60 lbs.

Production basis PC2SW

Export eligibility Aircraft will be eligible for issuance of an Export Certificate of

Airworthiness subject to compliance with FAR Part 21.

NOTE 1 Current weight and balance report including list of equipment included in certificated empty weight, and loading instructions, when necessary, must be provided for each aircraft at the time of original certification. The empty weight and corresponding center of gravity location must include the following unusable fuel:

42 lbs. at (+33.0)

NOTE 2 The following information on placards pertaining to flight and operating limitations must be displayed on Models AT-300, AT-301, and AT-250.

- a. On canopy door, side window, or fuselage side panel: Restricted
- b. In full view of pilot:
 - (1) This airplane must be operated in restricted category in accordance with placards and markings in the cockpit. No acrobatic maneuvers, including spins. Design maneuvering speed 140 mph. Max flap down speed 115 mph. Max crosswind velocity landing 15 mph. Alt. loss from stall 220 ft.
 - (2) The operation of this airplane is limited to day and night* VFR conditions. Flight into known icing conditions is prohibited.
 - *Delete the words "and night" unless aircraft is equipped with operable lighting package.
 - (3) Push stick forward to unlock tailwheel.
 - (4) Park brake operation: On: Pull lever, depress pedal. Off: Push lever full forward. Warning: Lever must be full forward before takeoff or landing.
 - (5) Reduce engine RPM to 2200 or less when operating near houses or areas where excessive noise should be avoided.
 - (6) Next to fuel pressure light: Warning Low fuel pressure.
 - (7) Next to fuel filler caps: Fuel 38* U.S. gal. Min. Octane 87. Fuel tanks are interconnected. Allow sufficient time for fuel level to equalize before top- off of tank. No aeromatic fuel.
 - (8) Next to oil filler cap: Oil Tank 8-gal. cap.
 - (9) On instrument panel: Do not operate spray pump above 140 mph.
 - (10) Do not turn off alternator in flight except in emergency.
 - (11) Warning: Sulfur dusting is prohibited unless special fire prevention measures are incorporated in aircraft.
 - (12) On canopy doors: Do not open doors in flight.
 - (13) On inside of each door window next to the top and forward at the door handle: If doors will not open after overturn, kick out windows with knees or feet.

^{*} Substitute "63" when optional 63 gal. tanks are installed.

- NOTE 3 The following information on placards pertaining to flight and operating limitations must be displayed on Model AT-302.
 - On canopy door: Restricted.
 - b. In full view of the pilot:
 - (1) This airplane must be operated in restricted category in accordance with placards and markings in the cockpit. No acrobatic maneuvers, including spins. Design maneuvering speed 140 mph. Max flap down speed 115 mph. Max crosswind velocity landing 15 mph. Alt. loss from stall 220 ft.
 - (2) The operation of this airplane is limited to day and night* VFR conditions. Flight into known icing conditions is prohibited.
 - *Delete the words "and night" unless aircraft is equipped with operable lighting package.
 - (3) Push stick forward to unlock tailwheel.
 - (4) Park brake operation: On: Pull lever, depress pedal. Off: Push lever full forward. Warning: Lever must be full forward before takeoff or landing.
 - (5) Do not operate engine above 30 lbs. torque on ground runup or tail will come up.

Flight in vicinity of thunderstorms prohibited.

Flight in visible moisture below 40°F prohibited.

Flight below 10°F prohibited.

Use prist when operating below 40°F.

Maximum operational altitude 8,000 feet MSL.

- (6) Warning: Do not move power lever into reverse position with engine stopped, or controls will be damaged. (Not required when nonreversing prop is installed.)
- (7) Do not operate spray pump above 140 mph.
- (8) Warning: Sulfur dusting is prohibited unless special fire prevention measures are incorporated in aircraft.
- (9) Chip detector air filter.
- (10) On L/H door frame next to power lever: Flight idle.
- (11) On canopy doors: Do not open doors in flight.
- (12) On inside of each door window next to the top and forward at the door handle: If doors will not open after overturn, kick out windows with knees or feet.
- c. Attached to skin of aircraft:
 - (1) Next to fuel filler caps: Fuel 38* U.S. gal. Jet A fuel tanks are interconnected. Allow sufficient time for fuel level to equalize before top- off of tank. No aeromatic fuel.

*Substitute "63" when optional 63-gallon tanks are installed.

- (2) Next to oil filter cap: Oil Tank 8.0-qt. cap.
- NOTE 4 The following information on placards pertaining to flight and operating limitations must be displayed on model AT-400 and AT-400A.
 - a. On canopy door: Restricted.
 - b. Attached to skin of aircraft:
 - (1) Next to fuel filler caps:
 - Fuel 63 U.S. gal. Jet A fuel tanks are interconnected. Allow sufficient time for fuel level to equalize before top-off of tank. No aeromatic fuel.
 - (2) Next to oil filter cap: Oil Tank 8.0-qt. cap.
 - (3) On lower aft edge of nose cowl: Chip detector.
 - (4) Next to pitot static buttons: Static air keep clean.
 - c. In full view of the pilot:
 - (1) This airplane must be operated in restricted category in accordance with placards and markings in the cockpit. No acrobatic maneuvers, including spins. Design maneuvering speed 140 mph Max flap down speed 115 mph. Max crosswind velocity landing 15 mph. Alt. loss from stall 200 ft.
 - (2) The operation of this airplane is limited to day and night* VFR conditions. Flight into known icing conditions is prohibited.
 - *Delete the words "and night" unless aircraft is equipped with operable lighting package.
 - (3) Push stick forward to unlock tailwheel.
 - (4) Park brake operation: On: Pull lever, depress pedal. Off: Push lever full forward. Warning: Lever must be full forward before takeoff or landing.
 - (5) Do not operate engine above 800 ft.-lbs. torque on ground runup or tail will come up.

Flight in vicinity of thunderstorms prohibited.

Flight in visible moisture below 40°F prohibited.

Flight below 5°F prohibited.

Use prist when operating below 40°F.

(6) <u>Warning</u>: Do not move power lever into reverse position with engine stopped, or controls will be damaged. (Not required when nonreversing prop is installed.)

- (7) Do not operate spray pump above 140 mph.
- (8) Warning: Sulfur dusting is prohibited unless special fire prevention measures are incorporated in aircraft.
- (9) Fuel pressure and Air Filter warning light placards.
- (10) On engine control quadrant at the respective Hi and Lo idle position: Flight idle and run. On start control lever: S.
- (11) On aft end of engine control quadrant next to power lever: Rev. At the stop detend: Idle. On power control Lever: Power
- (12) On prop control lever: P and on aft end of travel: F.
- (13) On canopy doors: Do not open doors in flight.
- (14) Below beta light on upper panel: Prop in beta range.
- (15) On inside of each door window next to the top and forward at the door handle: If doors will not open after overturn, kick out windows with knees or feet.

NOTE 5 Safe-life of Air Tractor Model AT-300 and Model AT-301 (S/N 0001- 0040) wing carry-through structure and attaching structure is limited to 5,000 hours time-in-service. Safe-life of these models can be extended to 7,000 hours according to Snow Engineering Company Service Letter Number 55.

Safe-life of Air Tractor Model AT-300, Model AT-301, and Model 302 (S/N 0041 and Up) wing carry-through structure and attaching structure is limited to 5,000 hours time-in-service. Safe-life of these models can be extended beyond 5,000 hours to 7,000 hours according to Snow Engineering Company Service Letter Number 70 dated April 1, 1986 and Service Letter Number 55 dated July 26, 1984. Safe-life may be extended beyond 7,000 hours to 10,000 hours according to Service Letter Number 161, dated February 2, 1998 when performed by a facility designated by Air Tractor.

Safe -life of Air Tractor Model AT-400 (S/N 0244-0415) wing carry-through structure and attaching structure is limited to 5,000 hours time-in-service. Safe-life of this model can be extended to 7,000 hours according to Snow Engineering Company Service Letter Number 70 dated April 1, 1986 and Service Letter Number 55 dated July 26, 1984.

Safe-life of Air Tractor Model AT-400 (S/N 0416 and Up) wing carry-through structure and attaching structure with steel spar caps is 26, 752 hours time-in-service.

Safe-life of Air Tractor Model AT-400A wing carry-through structure and attaching structure with the original 350-gallon hopper is limited to 5,000 hours time-in-service. Safe-life of this model can be extended from 5,000 hours to 7,000 hours according to Snow Engineering Company Service Letter Number 70 dated April 1, 1986 and Service Letter Number 55 dated July 26, a984. Safe-life may be extended beyond 7,000 hours to 10,000 hours according to Service Letter Number 161, dated February 2, 1998 when performed by a facility designated by Air Tractor.

Safe-life of Air Tractor model-number derivatives and conversion from one model number to another using the same wing with aluminum spar caps will be the more restrictive of the design gross weight and safe-life of the affected models. The safe-life may never be higher than the least for the two models.

Safe-life of wings for which the aluminum lower caps have been replaced according to Snow Engineering Company Service Letter Number 81, dated December 2, 1989, is that of new wings.

- NOTE 6 Alternator load limited to 30 amperes, Models AT-300 and AT-301.
- NOTE 7 Model AT-300 AND AT-301 are eligible for conversion from one model to the other.
- NOTE 8 Models AT-300 and AT-301 without "Vibro-damp" engine mounts use oil tank of 11.4 gal. total 84 lb. capacity, 9 gallons usable at (-23.0).
- NOTE 9 Optional main landing gear for the AT-400A and AT-301 is the AT-400 (Drawing P/N 40058-1 & 2) main gear.
- NOTE 10 The retirement life of the one-inch-thick main landing gears (P/N 40007-2 or P/N 40058-1) installed on the Models AT-300 and AT-301 airplanes is limited to 2,000 hours time in service or 7,500 landings, whichever comes first. The retirement life of the one-inch- thick main landing gears (P/N 40007-2 or P/N 40058-1) installed on the Models AT-302, AT-400, AT-400A airplanes is limited to 1,200 hours time in service or 6,000 landings, whichever comes first.
- NOTE 11 Safelife of Air Tractor Model AT-250 wing carry-through structure and attaching structure is limited to 10,000 hours' time-in-service.

NOTE 12 Models AT-301 and AT-400A are eligible for conversion from one model to the other in accordance with Service Letter starting with Serial 301-0261 and subsequent.

- NOTE 13 C.G. Limits for model AT-300 and AT-301 equipped with the factory all-metal elevators and rudder may be extended to 24.5 inches providing a P/N 70466-2 strap and downspring is installed in accordance with drawing 70465.
- NOTE 14 C.G. Limits for models AT-302, AT-400, and AT-400A equipped with the factory all-metal elevators and rudder may be extended to 26.0 inches providing a P/N 70466-1 strap and downspring is installed in accordance with drawing 70465.
- NOTE 15 Vne speed may be increased to 176 mph (153 knots) when P/N HC-B3TN-3D/T10282NS+4 Hartzell propeller is installed.

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